

What is claim d is:

1. A light-emitting tube array display device comprising:
a light-emitting tube array constituted of a plurality of
light-emitting tubes arranged in parallel with discharge gas filled
5 therein;
a light-transmitting supporter abutting a display surface
side of the light-emitting tube array for supporting the
light-emitting tube array and having electrodes formed on its
surface facing the light-emitting tube array for applying a voltage
10 to the light-emitting tubes; and
a light-transmitting adhesive layer formed between the
supporter and the light-emitting tube array,
wherein the adhesive layer has a refractive index equal to
or higher than that of a tube body of each light-emitting tube.
- 15 2. A light-emitting tube array display device comprising:
a light-emitting tube array constituted of a plurality of
light-emitting tubes arranged in parallel with discharge gas filled
therein;
a light-transmitting supporter abutting a display surface
20 side of the light-emitting tube array for supporting the
light-emitting tube array and having electrodes formed on its
surface facing the light-emitting tube array for applying a voltage
to the light-emitting tubes; and
a light-transmitting adhesive layer formed between the
25 supporter and the light-emitting tube array,
wherein the supporter has a refractive index equal to or
higher than that of the adhesive layer.

3. A light-emitting tube array display device comprising:
a light-emitting tube array constituted of a plurality of
light-emitting tubes arranged in parallel with discharge gas filled
therein;
- 5 a light-transmitting supporter abutting a display surface
side of the light-emitting tube array for supporting the
light-emitting tube array and having electrodes formed on its
surface facing the light-emitting tube array for applying a voltage
to the light-emitting tubes; and
- 10 a light-transmitting adhesive layer formed between the
supporter and the light-emitting tube array,
wherein the adhesive layer has a refractive index equal to
or higher than that of a tube body of each light-emitting tube, and
the supporter has a refractive index higher than that of the
15 adhesive layer.
4. The light-emitting tube array display device according to
claim 3, wherein the refractive index of the tube body of each
light-emitting tube is equal to or less than 1.47, the refractive
index of the adhesive layer is 1.47-1.50, and the refractive index of
20 the supporter is equal to or higher than 1.50.
5. The light-emitting tube array display device according to
claim 1, 2 or 3, wherein the supporter is a flexible resin sheet.
6. The light-emitting tube array display device according to
claim 5, wherein the tube body of each light-emitting tube is made
25 of borosilicate glass, the flexible resin sheet is made of
polyethylene terephthalate, and the adhesive layer is made of
acrylic resin.

7. The light-emitting tube array display device according to claim 1, 2 or 3, wherein each light-emitting tube has a flat portion provided on its surface facing the supporter and a cross section that allows the flat portion to face at least one electrode of the supporter when the supporter abuts the flat portion.
8. The light-emitting tube array display device according to claim 1, 2 or 3, further comprising a resin layer formed in a space among the adjacent light-emitting tubes and the supporter.
9. The light-emitting tube array display device according to claim 1, 2 or 3, further comprising one or more film(s) or substrate(s) having a refractive index higher than that of the supporter, the one or more film(s) or substrate(s) being disposed on a display surface side of the supporter in such a manner that their refractive indices increase successively with distance from the supporter.
10. The light-emitting tube array display device according to claim 1, 2 or 3, further comprising a rear side substrate abutting a surface of each light-emitting tube opposite to the flat portion so that the light-emitting tube array is held between the supporter and the rear side substrate.